MEASUREMENT BOOK

Date	Full description, etc, of work	Dimensions				Contents	Reference to last Measurement
		Number	Length	Breadth	Depth		
1	2	3	4	5	6	7	8

SBR 22/27-5-16

M. A. R. 57 (Rule 116)
Measurement Book

No. B

Serial No. 1st & final bill.

Name of Work drilling of bore wells in ward no. 13. Shettyhalli Sub Division. From ..... To .....

Name of Contractor of nature of Agency R. Lingappa and Sons.

Date of commencement of work ..... Est. Cost: 20.00 Lakhs.

416227

Date	Full description, etc, of work	Dimensions				Contents	Reference to last Measurement
		Number	Length	Breadth	Depth		
1	2	3	4	5	6	7	8
	Job Code: 013-16-000008. Work order No: EE/DD/WO/22/15-16, Date: 31/03/2016. A.A No: CE/D2/AS/18/15-16. Date: 04/01/2016 T.S No: EE/DD/TS/S2/15-16, Date: 04/01/2016 P-Code-1802. Name of the contractor: M/S R. Lingappa & Sons. Date of Recovering: 27-5-16						

MEASUREMENT BOOK

Date	Full description, etc, of work	Dimensions				Contents	Reference to last Measurement
		Number	Length	Breadth	Depth		
1	2	3	4	5	6	7	8
1)	Geophysical investigation of Side for Sinking borewell for supplying drinking water to the habitation either through the hand pump mws or P.W.S.S by vertical electrical sunding by adopting verner or Schlumberg Koola's method. including reconnaissance Survey of geological formation. Geological investigation of existing ground water in vicinity. its quality. quantity & acceptability of the users indicating the location of Side. recommended depth of casing pipe required to seal the top unconsolidated formation including an extra depth of 1.0 mtr in consolidated formation for proper seating of casing pipe. depth of drilling required to cover full depth of aquifer proposed to be tapped. Potable yield & other information required including transportation of instrument & accessories to work Side. engaging technical personal & labour required etc., complete as per Specification & as per direction of Engineer-in-Charge.						
	1.0 mtr wide TMB page no: 416287.						

M. A. R. 57 (Rule 116)
Measurement Book

No. B

416228

Serial No. .....

Name of Work ..... From..... To.....

Name of Contractor of nature of Agency .....

Date of commencement of work .....

Date	Full description, etc, of work	Dimensions				Contents	Reference to last Measurement
		Number	Length	Breadth	Depth		
1	2	3	4	5	6	7	8
	@ wide	3.00			3.00		
				@ Rs. 1938.46 =		5815.00	
a)	Sinking of borewell of 165 mm dia clear using Super fast hydraulic rig of Capacity 250 PSI & above 900 CMF & above in all strata including over burden upto 20.m fixing of casing pipes. Collars & Cap with necessary cutting. threading & welding including transportation of rig & supporting vehicle. Crew Charges & Cost of Consumables etc., complete including yield testing at the final depth with minimum working of compressor for one hour (Excluding cost of Casing Pipes, Collars, Cap etc.) complete as per specification & as per direction of Engineer-in-Charge.						
	TMB Page No: 416287 & 416289						

MEASUREMENT BOOK

Date	Full description, etc, of work	Dimensions				Contents	*Reference to last Measurement
		Number	Length	Breadth	Depth		
1	2	3	4	5	6	7	8
	I BHEL main Colony 10th Cross.						
	0.00 to 50.00 mtrs		Qt wide		50.00		
				@ Rs.	315.18	→	15759.00
	50.00 to 100.00 mtrs		Qt wide		50.00		
				@ Rs.	412.00	→	20600.00
	100.00 to 150.00 mtrs		Qt wide		50.00		
				@ Rs.	458.35	→	22918.00
	150.00 to 200.00 mtrs		Qt wide		50.00		
				@ Rs.	484.10	→	24205.00
	200.00 to 250.00 mtrs		Qt wide		50.00		
				@ Rs.	560.32	→	28016.00
	250.00 to 300.00 mtrs		Qt wide		50.00		
				@ Rs.	600.49	→	30025.00

M. A. R. 57 (Rule 116)
Measurement Book

No. B

Serial No. .....

Name of Work ..... From..... To.....

Name of Contractor of nature of Agency .....

Date of commencement of work .....

416229

Date	Full description, etc, of work	Dimensions				Contents	Reference to last Measurement
		Number	Length	Breadth	Depth		
1	2	3	4	5	6	7	8
	II mallasandra village near Uchangi temple.						
	0.00 to 50.00 mtrs		Qt wide		50.00		
			@ Rs.	315.	→	15759.00	
	50.00 to 100.00 mtrs				Qt wide	50.00	
					@ Rs.	412.00 →	20600.00
	100.00 to 150.00 mtrs				Qt wide	50.00	
					@ Rs.	458.35 →	22918.00
	150.00 to 200.00 mtrs				Qt wide	50.00	
					@ Rs.	484.00 →	24205.00
	200.00 to 250.00 mtrs				Qt wide	50.00	
					@ Rs.	560.32 →	28016.00

MEASUREMENT BOOK

Date	Full description, etc, of work	Dimensions				Contents	*Reference to last Measurement
		Number	Length	Breadth	Depth		
1	2	3	4	5	6	7	8
	250.00 to 300.00 mtrs			@ wide		40.00	
				@ Rs. 600.49		→	24020.00
	III Agrahara layout 10th Cross.						
	0.00 to 50.00 mtrs			@ wide		50.00	
				@ Rs. 315.18		→	15759.00
	50.00 to 100.00 mtrs			@ wide		50.00	
				@ Rs. 412.00		→	20600.00
	100.00 to 150.00 mtrs			@ wide		50.00	
				@ Rs. 458.35		→	22918.00
	150.00 to 200.00 mtrs			@ wide		50.00	
				@ Rs. 484.10		→	24205.00
	~~200~~.00 to ~~250~~.00 mtrs			@ wide		50.00	
				@ Rs. 560.32		→	28016.00

M. A. R. 57 (Rule 116)
Measurement Book

No. B

Serial No. .....

416230

Name of Work ..... From..... To.....

Name of Contractor of nature of Agency .....

Date of commencement of work .....

Date	Full description, etc, of work	Dimensions				Contents	Reference to last Measurement
		Number	Length	Breadth	Depth		
1	2	3	4	5	6	7	8
	~~250~~.00 to 300.00			@ wide		~~40~~.00	
				@ Rs. 600.49		→	24020.00
3)	Supplying of ISI mark 175 mm nominal bore medium black ERW casing pipe of 5mm thick black electric resistance confirmoswelded middle steel tube material confirming to IS 1387/1993 & manufactured from hot rolled steel steelp/stripes in random length of 6 to 7 mtr both ends threaded confirming to IS 554/1985 one end (including of all taxes) complete as per specifications & as per direction of Engineer-in-Charge.						
	TMB page no: 416287/1 to 416289/1						
	For 3 Kms			@ wide		240.00	
				@ Rs. 1364.75		→	327540.00

MEASUREMENT BOOK

Date	Full description, etc, of work	Dimensions				Contents	Reference to last Measurement
		Number	Length	Breadth	Depth		
1	2	3	4	5	6	7	8
5)	Providing & fixing 250 mm dia PVC pipe as per specification & direction. Complete as per specification & as per direction of Engineer-in-Charge.						
	TMB page No: 416287/1 to 416289/1						
	16+16+16=48					54.00	
						@ Rs. 1133.00 →	203944.00
4)	M.S casing Pipe collars 'C' class complete as per specification & as per direction of Engineer-in-Charge.						
	TMB page No: 416287/1						
	16+16+16=48					48.00	
						@ Rs. 154.50 →	7416.00
6)	175 mm dia M.S casing cap complete as per & as per direction of Engineer-in-Charge.						Specification

M. A. R. 57 (Rule 116)
Measurement Book

No. B

Serial No. .....
Name of Work ..... From..... To.....
Name of Contractor of nature of Agency .....
Date of commencement of work .....

416231

Date	Full description, etc, of work	Dimensions				Contents	Reference to last Measurement
		Number	Length	Breadth	Depth		
1	2	3	4	5	6	7	8
	TMB Page No: 416288					3.00	
	1+1+1=3						
7)	Supply & delivery of side board new Beam/Inroad/Kirloskar/Sabar/Ashoka/Calamal/water ram/Radha make suitable HP deep well submersible pumpset suitable for vertical installation in 150 dia borewell CF Pump Close coupled by means of stainless steel coupling to suitable HP suitable speed totally enclosed & filled with pure drinking water squirrel cage submersible induction motor suitable for operation of 3Ph. 50 Hz. 380/440 volts AC supply fitted with required accessories such as suction, casing suction strainers, sand guard, non return valve etc. complete TMB Pump & motor					@ Rs. 103.00 →	309.00

P.T.O.

MEASUREMENT BOOK

Date	Full description, etc, of work	Dimensions				Contents	*Reference to last Measurement
		Number	Length	Breadth	Depth		
1	2	3	4	5	6	7	8
	Shall from an integral unit with all the required fittings 15.000- HP 25 stage complete as per specification & as per direction of Engineer-in-Charge.						
	TMB Page no: 416289/1			At wide	3.00		
		1+1+1=3				@ Rs. 69334.60 →	208003.80.
8)	Providing, laying & painting GI Pipes confirming to IS specification of approved make with fitting such as Collars bends elbows tees nipples plugs with cuts threads using white lead & threads for joints wherever necessary as per direction including all lead & lift etc.) Complete 'A' grade (Excluding cost of fittings) 650mm dia GI Pipe Complete as per specification & as per direction of Engineer in-Charge.						
	TMB Page-No: 416289/1			At wide	828.00		
	276+276+276=828					@ Rs. 340.26 →	281818.40

M. A. R. 57 (Rule 116)
Measurement Book

No. B 416232

Serial No. .....
Name of Work ..... From..... To.....
Name of Contractor of nature of Agency .....
Date of commencement of work .....

Date	Full description, etc, of work	Dimensions				Contents	Reference to last Measurement
		Number	Length	Breadth	Depth		
1	2	3	4	5	6	7	8
9)	Supplying & drawing 3 core PVC Sheathed Submersible pump Cable manufactured with electrolytic grade copper with flexible copper conductor confirming to table 3 class 5 of IS:8130-1984 & virgin grade PVC insulation & Sheathed & suitable for working voltage upto 1100 volts 4 Sqmm of 56 strands 0.3 mm dia complete as per specification & as per direction of Engineer-in-Charge.						
	TMB Page no: 416289/1			At wide			
	600+600+600=			1800.00		@ Rs. 164.38 →	295884.00
				Mtr			

MEASUREMENT BOOK

Date	Full description, etc, of work	Dimensions				Contents	*Reference to last Measurement
		Number	Length	Breadth	Depth		
1	2	3	4	5	6	7	8
10)	Fabricating Supplying & mounting ms box of 16 SWG Suitable for floor/wall mounting. fully weather proof with provision for better hear dessipation. Providing with hinged front Cover. equipped with tamper proof locking arrangements, with suitable size clamps. with necessary cable entry Pipe with gland & box should be finished 2 coats of red oxide primer & paint & finally finished with approved Colour enamelled metal paint etc. for 1 borewell complete as per specification & as per direction of Engineer-in-Charge						
	@ 1 wide	3.00	1100.00	20.00		66000.00	
			@ 1 wide	—		66000.00	
			@ Rs.. 0.34		→	22440.00	

M. A. R. 57 (Rule 116)
Measurement Book

No. B

416233

Serial No. .....

Name of Work ..... From..... To.....

Name of Contractor of nature of Agency .....

Date of commencement of work .....

Date	Full description, etc, of work	Dimensions				Contents	Reference to last Measurement
		Number	Length	Breadth	Depth		
1	2	3	4	5	6	7	8
11)	Supplying & delivery of brand new best make non return valve of size 50mm as per IS:778/gu with latest amendments with ISI mark (50mm brass wheel valve) complete as per specification & as per direction of Engineer-in-Charge.						
		3.	3.00			9.00	No's
				@ 1 wide		9.00	No's
				@ Rs.. 1213.70	→	10923.00	

MEASUREMENT BOOK

Date	Full description, etc, of work	Dimensions				Contents	*Reference to last Measurement
		Number	Length	Breadth	Depth		
1	2	3	4	5	6	7	8
12)	Supplying & delivery of brand new best make Gate Valve of size 50 mm as per IS:778/84 with latest amendments with ISI mark. 50 mm Gate Valve for distributer Pipeline. 50mm dia complete as per Specification. & as per direction of Engineer-in-Charge.						
		3	3.00			9.00	Nos
				@ Rs. 1696.00		→ 15264.00	
13)	providing & fixing of 50 mm GI Shoarbend to motor complete as per specification & as per direction of Engineer-in-Charge.						
		3	3.00			9.00	Nos
				@ Rs. 232.14		→ 2089.00	

M. A. R. 57 (Rule 116)
Measurement Book

No. B

Serial No. .....

Name of Work ..... From..... To.....

Name of Contractor of nature of Agency .....

Date of commencement of work .....

416234

Date	Full description, etc, of work	Dimensions				Contents	Reference to last Measurement
		Number	Length	Breadth	Depth		
1	2	3	4	5	6	7	8
14)	providing & fixing of 50 mm GI union to the motor complete as per specification. & as per direction of Engineer-in-Charge.						
		3	3.00			9.00	Nos
				@	Rs. 237.12	→ 2134.00	
15)	providing & fixing of 50 mm GI Elbow to the motor complete as per specification. & as per direction of Engineer-in-Charge.						
		3	3.00			9.00	Nos
				@	Rs. 111.80	→ 1006.00	

MEASUREMENT BOOK

Date	Full description, etc, of work	Dimensions				Contents	*Reference to last Measurement
		Number	Length	Breadth	Depth		
1	2	3	4	5	6	7	8
16	Labour charges for erection of new [repaired submersible pumpset along with 5 riPipers (32/30 mm) Cable (new submersible] pumpset if required will be supplied by the department free of cost of released pumpset should be handed over to department] including transportation [each length = 6.00 m] complete as per specification & as per direction of Engineer-in-Charge.	3	52.00			156.00	
			@ Rs. 90.64 ⟶				14140.00
17)	Supplying & fixing miniature circuit breakers / isolators in existing MCB distribution boards using necessary fixing materials & wiring complete as required. (40 DP complete as per specification & as per direction of Engineer-in-Charge	3	1.00			3.00	do 63 Amps MCBs
			@ Rs. 906.00 ⟶				2719.00

M. A. R. 57 (Rule 116)
Measurement Book

No. B

Serial No. .....

Name of Work ..... From..... To.....

Name of Contractor of nature of Agency .....

Date of commencement of work .....

416235

Date	Full description, etc, of work	Dimensions				Contents	Reference to last Measurement
		Number	Length	Breadth	Depth		
1	2	3	4	5	6	7	8
18)	Supplying & laying of L.T.U.G. Cable having aluminium conductor PVC insulated stranded galvanised steel wire / steel tape armoured cable with PVC outer sheathing 1.1 KV class 4 core 16 sqmm cable Conforming to IS 1554] complete as per specification & as per direction of Engineer-in-Charge.	3	35.00			105.00	mtr
				@ Rs. 169.95 ⟶			17845.00
19)	Digging of trenches of 0.6 mm x 0.50 mtrs wide refilling the trench to the required ground level & consolidating etc. complete Cutting roads surfaces complete as per specification & as per direction of Engineer-in-Charge						

P.T.O

MEASUREMENT BOOK

Date	Full description, etc, of work	Dimensions				Contents	Reference to last Measurement
		Number	Length	Breadth	Depth		
1	2	3	4	5	6	7	8
		1	30.00			30.00	
		1	35.00			35.00	
		1	40.00			40.00	
				Total →		105.00	mtr
				@Rs 56.65 →		5948.00	
20)	Supplying & fixing class-A GI Pipe on pole/wall/drain Crossing with necessary clamping arrangements for UG Cable of 1.1 KV Class 40 mm complete as per Specification & as per direction of Engineer-in-Charge.						
		3	3.00			9.00	mtr
				@ Rs. 249.26 →		2243.00	

M. A. R. 57 (Rule 116)
Measurement Book

No. B

416236

Serial No. .....

Name of Work ..... From..... To.....

Name of Contractor of nature of Agency .....

Date of commencement of work .....

Date	Full description, etc, of work	Dimensions				Contents	Reference to last Measurement
		Number	Length	Breadth	Depth		
1	2	3	4	5	6	7	8
21)	Supplying & fixing wiring earth electrode for grounding conduits IC cutouts & others equipments on the meter board using 40mm dia 2.90 mm thick GI Pipe 2.5 mtr long buried in a pit/the pit should be filled with equal proportion of Salt & Charcoal 150 mm aroound the pipe to complete depth the connections from the Pipe to the conduit etc., is to be established through GI wire of size as per ISI specification. 7.3.3. of ISI 732 using 12mm dia bolts, nuts washers & Checknuts etc., the Pipe shall have 16 through holes of 12.2 mm dia complete as per specification						
		1	3.00			3.00	No's
				@ Rs. 1699.50 →		5099.00	

MEASUREMENT BOOK

Date	Full description, etc, of work	Dimensions				Contents	*Reference to last Measurement
		Number	Length	Breadth	Depth		
1	2	3	4	5	6	7	8
22.	Supply & fixing LT Cast iron Pot heads suitable for 1.1 kv class 16 Sq mm Cu Cable filled with necessary bitumen/ insulating compound complete with terminals. Glands. bolts nuts & washers etc., complete as per specifications & as per direction of Engineer-in-charge.	1	3.00			3.00 nos	
						@ Rs. 271.00 →	816.00
23)	providing & fixing Gun metal gate wheel valve conforming to IS specification of approved make as per direction including all lead & lift etc., Complete 50 mm dia complete as per specification & as per direction of Engineer-in charge.	3	3.00			9.00 nos	
						@ Rs. 1526.40 →	13738.00

M. A. R. 57 (Rule 116)
Measurement Book

No. B

416237

Serial No. .....

Name of Work ..... From..... To.....

Name of Contractor of nature of Agency .....

Date of commencement of work .....

Date	Full description, etc, of work	Dimensions				Contents	Reference to last Measurement
		Number	Length	Breadth	Depth		
1	2	3	4	5	6	7	8
24.	Supplying & fixing of polished wood board made of not less than 15 mm thick planks on both sides with planks made out on not more than 2 pieces & fixing the same to wall using tapered inverted wooden plugs & screws etc., 20x20x2.5 inches. complete as per Specification & as per direction of Engineer-in-Charge.	1	3.00			3.00 nos	
25)	Earth work excavation for foundation of buildings, water supply Sanitary lines & electrical conduits either in pits or in trenches 1.5 m & above in width, in hard soil not exceeding 1.5 m in depth including dressing the bottom & sides of pits & trenches					@ Rs. 312.58 →	935.00

P.O.T.

MEASUREMENT BOOK

Date	Full description, etc, of work	Dimensions				Contents	Reference to last Measurement
		Number	Length	Breadth	Depth		
1	2	3	4	5	6	7	8
	Starting the excavated soil clear from edges of excavation with lead upto 50m after breaking of clods complete as per specification.						
		1	90.00	0.60	0.90	48.60	
		1	85.00	0.60	0.90	45.90	
		1	110.00	0.60	0.90	59.40	
				total		153.90	Cum
				@ Rs. 283.02 →			43557.00
26)	Providing & installing at site of work 63mm (0.062) PVC Pipes of 6.kg / cm2 including cost of Pipes & Special & labour. including lowering in to trenches, laying true to line, level and perfect jointing at joints leak proof including painting of approved type with all labour						

M. A. R. 57 (Rule 116)
Measurement Book

No. B

416238

Serial No. .....

Name of Work ..... From..... To.....

Name of Contractor of nature of Agency .....

Date of commencement of work .....

Date	Full description, etc, of work	Dimensions				Contents	Reference to last Measurement
		Number	Length	Breadth	Depth		
1	2	3	4	5	6	7	8
	and lift charges, handling charges including encasing the pipe aboard to adepth not less than 15cms with gravel or Selected earth available from the excavation etc, complete as per Specification & as per direction of Engineer-in charge.						
		1	90.00			90.00	
		1	85.00			85.00	
		1	110.00			110.00	
					Total →	285.00	mtr
					@ Rs. 130.38 →		37158.00

MEASUREMENT BOOK

Date	Full description, etc, of work	Dimensions				Contents	Reference to last Measurement
		Number	Length	Breadth	Depth		
1	2	3	4	5	6	7	8
27)	Refilling available Earth around Pipe lines. Cable in layers not exceeding 20cms in depth. Compacting each deposited layers by ramming after watering with lead upto 50 m and lift upto 1.5 m including cost of all labours & Complete as per specification. & as per direction of Engineer-in-charge					153.90 Cum @ Rs. 76.32 → 11746.00	
28)	Erection of pumping machineries Complete as per specification. & as per direction of Engineer-in-Charge					3.00 Cum @ Rs. 950.00 → 2850.00	

M. A. R. 57 (Rule 116)
Measurement Book

No. B

416239

Serial No. .....

Name of Work ..... From..... To.....

Name of Contractor of nature of Agency .....

Date of commencement of work .....

Date	Full description, etc, of work	Dimensions				Contents	Reference to last Measurement
		Number	Length	Breadth	Depth		
1	2	3	4	5	6	7	8
29)	KPTCL Deposit Charges.						
	Reg charges	3					
	Deposit	2		1400 X 2 =		@ Rs. 300.00	
		1				@ Rs. 14820.00	
		9				9620.00	
		3	X 1889.33			@ Rs. 1889.33	
						@ Rs. 5667.33	
						→ 30387.99.	
	Total Bill Amount Rs-18,43,296.99						

Checked & Recommended

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ಪಟ್ಟಣಪಂಚಾಯತ್, ದಾವಣಗೆರೆ ವಲಯ
ಬೃಹತ್ ಬೆಂಗಳೂರು ಮಹಾನಗರ ಪಾಲಿಕೆ
ಬಸ್.ಐ ರಸ್ತೆ, ರವೀಂದ್ರನಗರ, ಬೆಂಗಳೂರು

17-5-16

MEASUREMENT BOOK

Date	Full description, etc, of work	Dimensions				Contents	*Reference to last Measurement
		Number	Length	Breadth	Depth		
1	2	3	4	5	6	7	8
	Certificate: 1) The Contractor has done the work Satisfactorily 2) The contractor has removed the debris from the work spot. ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು ಶಿಟ್ಟಹಳ್ಳಿ ಉಪವಿಭಾಗ, ಬಾಣಸವಾಡಿ ಪಟಯ ಕೃತ ಬೆಂಗಳೂರು ಮಹಾನಗರ ಪಾಲಿಕೆ ಎಸ್.ಎಂ ರಸ್ತೆ, ರವೀಂದ್ರನಗರ, ಬೆಂಗಳೂರು						

No. .....
me of Work ....
Name of Contrac
Date of commenc
Date | Full d
1